

What is claimed is:

1. A safety device for a passenger conveyor which stops an operation of the passenger conveyor when passenger's leg or a foreign object is caught in a clearance between a combplate disposed at a landing of the passenger conveyor and a passenger step, comprising:

- a combplate beam on which the combplate is mounted;
- a supporting beam juxtaposed to the combplate beam;
- supporting means for supporting the combplate beam with respect to the supporting beam, such that the combplate beam can displace in a passenger's getting on/off direction, and that the combplate beam can swing in vertical direction;

- a safety switch for stopping an operation of the passenger conveyor, said switch is provided on one of the combplate beam and the supporting beam; and

- a switch actuating member for actuating the safety switch when the combplate beam is displaced with respect to the supporting beam, said switch actuating member is disposed on the other of the combplate beam and the supporting beam; wherein

- said switch actuating member includes a first actuating portion for actuating the safety switch when the combplate beam is displaced in the passenger's getting on/off direction, and a second actuating portion for actuating the safety switches when the combplate beam is displaced upward.

2. A safety device for a passenger conveyor according to claim 1, further comprising:

- a first biasing means for biasing the combplate beam with respect to the supporting beam in a direction in which the passenger gets on the step;

- a second biasing means for biasing the combplate beam downward with respect to the supporting beam;

- a first adjusting mechanism for adjusting a biasing

force applied by the first biasing means; and

a second adjusting mechanism for adjusting a biasing force applied by the second biasing means.

3. A safety device for a passenger conveyor according to claim 1, wherein said supporting beam has a guide slope for guiding the combplate beam to slide thereon and displace upward, when the combplate beam is displaced in a passenger's getting off direction with respect to the supporting beam.

4. A safety device for a passenger conveyor according to claim 1, wherein said combplate beam has a pair of supporting rollers rolling on a supporting surface to support the combplate beam such that the combplate can move in a passenger's getting on/off direction.

5. A safety device for a passenger conveyor according to claim 1, wherein said supporting beam has a slide surface on which the combplate beam is slid when the combplate beam is displaced in a passenger's getting on/off direction, and wherein a friction reducing means is provided between the slide surface of the supporting beam and the combplate beam.